

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S) : Ronald P. Laliberty, et al.
TITLE : MULTI-LAYER SOFTBALL
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EXAMINER : Steven B. Wong
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MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.132

Dear Sir:

The undersigned declares as follows:

1. My name is Ronald P. Laliberty. I am one of the inventors in the above-captioned patent application.
2. I am familiar with the subject matter in this patent application. It is also my understanding that this patent application was published on May 27, 2004, as U.S. Patent Publication No. 2004/0102265.
3. The combination of a certain COR and low compression is critical to the multi-layer softball of this patent application.
4. As described in the abstract, the patent application relates to multi-layer softballs that have very low compression, but maintain traditional coefficient of restitution ("COR") values.

5. As described in paragraph [0003] of the application, softball manufacturers must meet both softball associations' compression requirements as well as the ball performance demands required by the players.

6. As described in paragraph [0005] of the application, such ball performance demands include the sound of the ball, the feel off the bat, flight consistency, durability, and grip and feel.

7. As described in paragraph [0004] of the application, the COR generally determines the speed of the ball off the bat.

8. As described in paragraph [0006] of the application, what is needed in the art is a softball that has "a very low compression while maintaining the standards for COR, durability, and performance."

9. As described in paragraph [0007] of the application, the multi-layer softball of the present application satisfies the need for lower compression while maintaining performance. The softball has a COR and durability that is comparable to a traditional softball at much lower compressions.

10. As described in paragraph [0017] of the application, the goal is to achieve a certain COR, durability, and low compression.

11. As described in paragraph [0025] of the application, the compression of a softball made with the multi-layer design of the invention is "under 400 lbs, preferably under 375 lbs., more preferably under 325 lbs..."

12. In Example 1, four variations of multi-layer softballs were made having different core constructions.

13. As seen in Table 2, the softball of Variation 1 had an average compression of 170.9 lbs (in the column labeled "Comp. Pole (lbf)") and an average COR at 60 mph (88 feet / second) of 0.448.

14. As seen in Table 2, the softball of Variation 2 had an average compression of 203.9 lbs (in the column labeled "Comp. Pole (lbf)") and an average COR at 60 mph (88 feet / second) of 0.435. In paragraph [0036], the compression of Variation 2 is given as 200 lbs.

15. In comparison, the control balls in Table 2 had an average compression of 565.4 and 415.0 lbs and an average COR at 60 mph (88 feet / second) of 0.439 and 0.431,

respectively. These control balls, Dudley® WT12RF80 and WS12RF80, are two-piece (single core and single cover) softballs, as opposed to multi-layer (core, one or more mantles, and cover) balls.

16. As seen in Table 3, the softball of Variation 3 had an average compression of 174.4 lbs (in the column labeled "Comp. Pole (lbf)") and an average COR at 60 mph (88 feet / second) of 0.471.

17. As seen in Table 3, the softball of Variation 4 had an average compression of 239.0 lbs (in the column labeled "Comp. Pole (lbf)") and an average COR at 60 mph (88 feet / second) of 0.464.

18. In comparison, the control ball in Table 3 had an average compression of 498 lbs and an average COR at 60 mph (88 feet / second) of 0.467.

19. As described in paragraph [0041] of the application, players responded that the multi-layer softball was softer than a traditional softball, but traveled the same distance.

20. In Example 2 as described in paragraph [0044] of the application, cores F and H were made into balls.

21. As seen in Table 7, the softball of core F had an average compression of 259.8 lbs and an average COR of 0.461.

22. In comparison, the 0.44 COR control (WS-12RF80, single core and single cover) had an average compression of 384.1 lbs and an average COR of 0.418.

23. As seen in Table 7, the softball of core H had an average compression of 235.2 lbs and an average COR of 0.477.

24. In comparison, the 0.47 COR control (WT-12RF80, single core and single cover) had an average compression of 441.5 lbs and an average COR of 0.463.

25. As seen at the end of Table 10, the multi-layer softball of the application traveled, on average, further than the control ball.

26. As seen in Table 11, the multi-layer softball Finished Ball Dudley® Thunder MLT 12 44 had an average compression of 249.0 lbs and an average COR of 0.442.

27. As seen in Table 12, the multi-layer softball Finished Ball Dudley® Thunder MLT 12 RF had an average compression of 182.2 lbs and an average COR of 0.446.

28. As seen at the end of Table 14, the multi-layer softballs B, C, and D of the application traveled, on average, further than the control ball A.

29. The abovementioned paragraphs show the criticality of the combination of low compression and the traditional COR in a multi-layer softball having a core, at least one mantle layer, and a cover. The compression should be 400 lbs or less, preferably under 375 lbs, and more preferably under 325 lbs, and the COR should be from about 0.400 to about 0.500 at 88 feet/second, more preferably from about 0.440 to about 0.470. This combination allows the softball of the instant application to have a lower compression than a traditional two-piece softball, but to travel an equal to or enhanced distance.

30. I am familiar with U.S. Patent No. 5,704,858 to Yang.

31. I am familiar with U.S. Patent No. 5,951,420 to Talarico.

32. I am familiar with U.S. Patent No. 5,647,590 to Walker.

33. I am familiar with U.S. Patent No. 4,772,019 to Morgan.

34. Yang does not discuss the combination of low compression and traditional COR. No mention is made of compression or COR at all.

35. Talarico discloses that a softball made according to his instructions will have a COR of about 0.45 and an impact force of about 400 lbs.

36. Talarico also discloses that his ball is made from a core with a Shore A hardness of 35-40 surrounded by an outer layer with a Shore A hardness of 60-65. This is the opposite of the softball of the present application, wherein the hardness of the outer layer is less than the hardness of the core.

37. Walker discloses that safety balls are not intended to travel the same distance as conventional game balls.

38. Walker also discloses that his softball has a COR of less than 0.45 with a practical lower limit of about 0.30. He discloses that conventional regulation softballs have a COR of about 0.50.

39. Walker emphasizes that his softball has a lower COR than the traditional COR.

40. Morgan does not discuss the combination of low compression and traditional COR.

41. In addition, Morgan discloses that his safety ball is intended to have limited flight characteristics and will travel about one-half to two-thirds the distance of a regulation ball.

42. Taken singly or in combination, I do not believe that Yang, Talarico, Walker, and Morgan would suggest making a multi-layer softball with a compression of 400 lbs or less and a COR of 0.40 to 0.50 that would still travel the same distance as a traditional softball.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

By Ronald P. Laliberty
Printed Name: Ronald P. Laliberty
Date: 1/29/2007